

Work Order ID 152919

Monday, November 07, 2016 4:06:36 PM

152919

Page 1

Item ID: **D4034-041** Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Aft Upper Rib Assembly
 Start Date: 11/15/2016 Start Qty: 2.00 ***2*** **4** **DAS 21 9-89** Cust Item ID:
 Required Date: 11/17/2016 Req'd Qty: 2.00 ***2*** Customer:
 Reference:

Approvals: Process Plan: **DAS 21 9-89** Date **NOV 09 2016** Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4034	C								

100 Weld per dwg A/R S.S. rod Batch: **M13444Z** 0.00

100

Large Fab Memo 0.22
 Large Fab 1- Assemble ribs to hoop and weld as per dwg DT9564
 2- Weld bushing in rib and grind weld flush as per dwg

(4) **DYC**
17-01-09

110 QC9- Inspect visual per QSI004- Fusion Welds 0.00

110

QC Memo 0.00
 Quality Control

4x **DAS 43 9-89** **JAN 11 2017**

120 QC5- Inspect part completeness to step on W/O 0.00

120

QC Memo 0.01
 Quality Control

4x **DAS 43 9-89** **JAN 11 2017**

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date ☐	☐	Manufacturing Process	☐	OTHER :			
Misidentified ☐	☐	Past Due	☐				

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Page 2

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: <u>WA4</u>	0.00							
130									
Packaging	Memo	0.00					4x	DAS 43 9-89	JAN 11 2017
Packaging	LOCATION: WA004								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.03							
Quality Control									

JAN 11 2017

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

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D4034-041

Required Qty: 2.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4034-1		Manufactured	No			100	Each	20.0000	1	2			
D4034-1													
Rib													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				WA004				20					
				152155				12					
				152156				8					
D4034-3		Manufactured	No			100	Each	1.0000	1	2			
D4034-3													
Rib													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				WA004				1					
				150384				1					
D4021-7		Manufactured	No			100	Each	0.0000	1	2			
D4021-7													
Hoop													
D4021-9		Manufactured	No			100	Each	24.0000	4	8			
D4021-9													
Bushing													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				WA004				24					
				145800				3					
				147436				21					

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

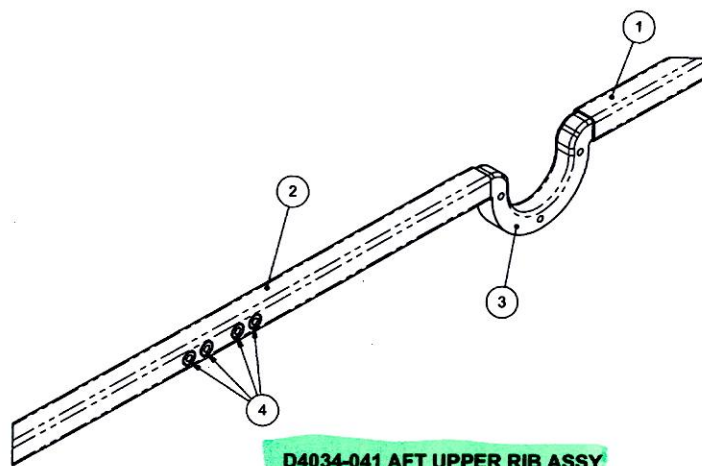


QA Closed: _____ Date: _____

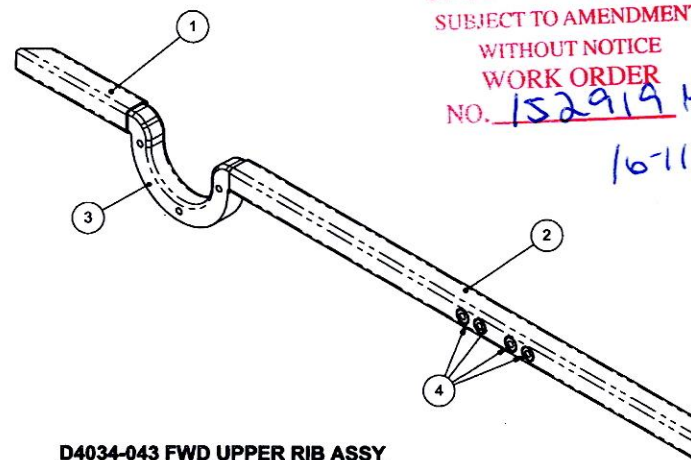
Work Order update only ☐

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Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					

ITEM	QTY -041	QTY -043	P/N	DESCRIPTION
	X		D4034-041	AFT UPPER RIB ASSY
		X	D4034-043	FWD UPPER RIB ASSY
1	1	1	D4034-1	RIB
2	1	1	D4034-3	RIB
3	1	1	D4021-7	HOOP
4	4	4	D4021-9	BUSHING



D4034-041 AFT UPPER RIB ASSY



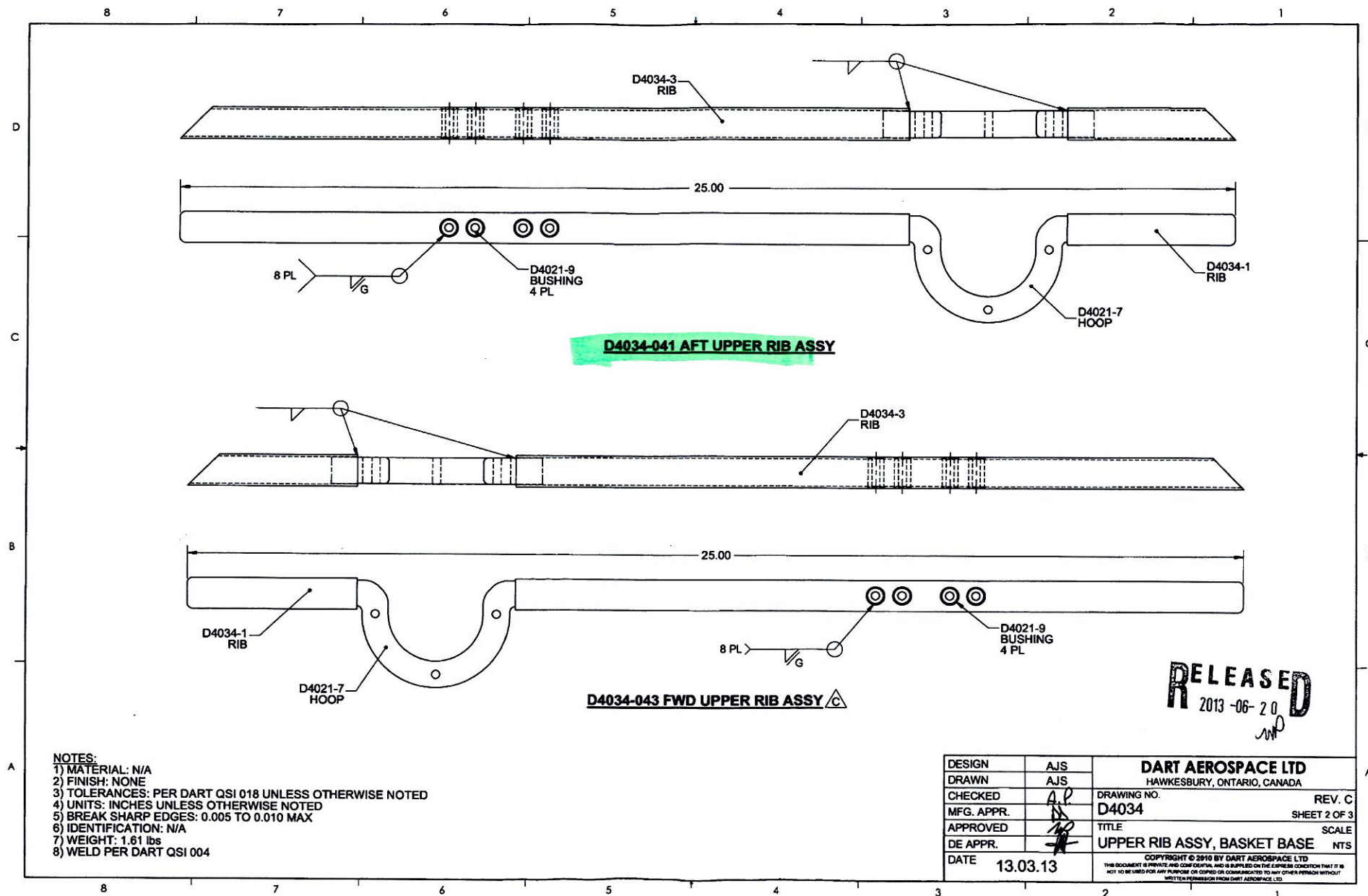
D4034-043 FWD UPPER RIB ASSY

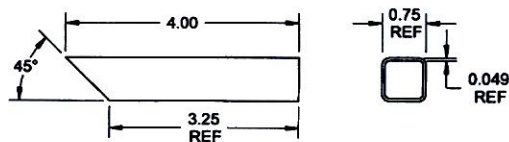
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 152919 MJS
16-11-09

RELEASED
2013-06-20
AM

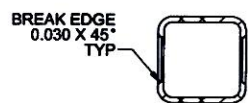
C	-043 REDESIGNED AS MIRROR IMAGE OF -041. -5 DELETED. D2327-3 DELETED. REASON PROP ARM NO LONGER OFFERED.		AJS	13.03.13
B	ADDITIONAL HOLES ADDED ON D4034-3 RIB		SC	10.12.20
A	NEW ISSUE		AJS	10.03.04
REV.	DESCRIPTION		BY	DATE
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D4034 TITLE UPPER RIB ASSY, BASKET BASE	REV. C SHEET 1 OF 3 SCALE NTS	
DRAWN	AJS			
CHECKED	A.P.			
MFG. APPR.	DS			
APPROVED	AP			
DE APPR.	TH			
DATE	13.03.13	COPYRIGHT © 2010 BY DART AEROSPACE LTD. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE, OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN INSTRUMENTAL SIGNATURE OF DART AEROSPACE LTD.		

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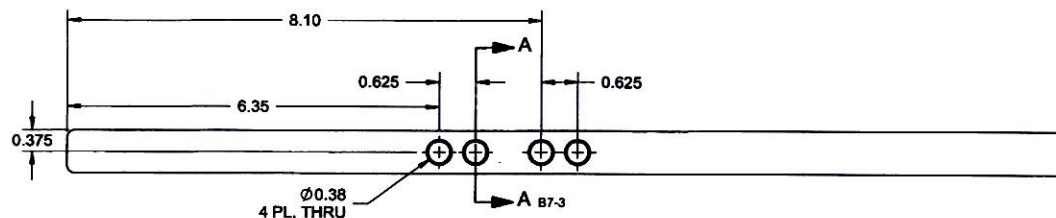




D4034-1 RIB



SECTION A-A C3-3



D4034-3 RIB

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SQUARE TUBE, 0.75 X 0.75 X 0.049 WALL
REF DART SPEC. M304TS0.750W.049
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT -1: 0.13 lbs
-3: 0.62 lbs

RELEASED
2013-06-28

DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	AP	DRAWING NO.	REV. C
MFG. APPR.	DS	D4034	SHEET 3 OF 3
APPROVED	AP	TITLE	SCALE
DE APPR.	AP	UPPER RIB ASSY, BASKET BASE	NTS
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